Higgs Production at e^+e^- Colliders

At e^+e^- linear colliders operating in the 300–800 GeV energy range, the main production mechanisms for SM–like Higgs particles are

(a)	bremsstrahlung process	$e^+e^- \to (Z) \to Z + H$
(b)	WW fusion process	$e^+e^- \to \bar{\nu}\,\nu\,(WW) \to \bar{\nu}\,\nu\, + H$
(c)	ZZ fusion process	$e^+e^- \to e^+e^-(ZZ) \to e^+e^- + H$
(d)	radiation off tops	$e^+e^- \to (\gamma, Z) \to t\bar{t} + H$

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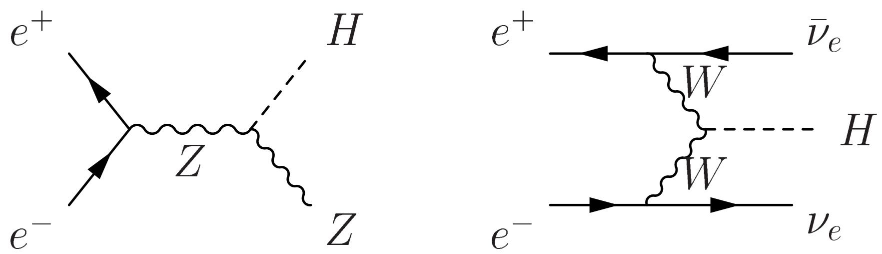

The Higgs–strahlung cross $\sim 1/s$ and dominates at low energies
The WW fusion mechanism has a cross section $\sim \log(s/M_H^2)$ and dominates at high energies.
At $\sqrt{s} \sim 500$ GeV, the two processes have approximately the same cross sections.